SUPPORT FOR THE AMENDMENTS

Claims 101 and 107 are cancelled in order to reduce issues for Appeal.

Claim 108 has been amended to correct claim dependency.

There are no new claims and one minor amendment to correct claim dependency, necessitated by cancellation of certain claims. Entry of the amendment, clearly reducing issues for Appeal, is respectfully requested.

REMARKS

Claims 53-60, 62-68, and 70-96, 99-100, and 108 are in the case.

There are believed to be no new issues.

The claims are rejected over Raja (Angew. Chem. Int. Ed. **2001**, 40, No. 24, p. 4638-4642) in view of Brunner (U.S. 6,284,917). The rejection is respectfully traversed.

It is alleged that Raja "substantially teaches the claimed catalyst, and therefore, any physical characteristics are necessarily possessed by the disclosed catalyst."

Raja, as pointed out previously and in person during a discussion with the Examiner, teaches a "bi-metallic catalyst" shown by the cluster in Figure 1 of the reference, whereas the presently claimed "single" metal precludes a complex containing more than one metal. The claim was intentionally drafted to specifically point out this difference. It was thought that agreement was reached ***with respect to this issue*** at a minimum.

We respectfully request clarification as to why the Examiner continues to allege that Raja "substantially teaches the claimed catalyst ...".

It appears to be agreed that Brunner does not identically disclose the invention, and hence the rejection is in combination with Raja under 35 USC §103.

Brunner discloses a process for hydrogenating benzenepolycarboxylic acids or derivatives thereof by bringing one or more of such acids or derivatives thereof into contact with a hydrogen-containing gas in the presence of a catalyst containing macropores. The present invention is directed to the use of mesoporous materials.

Thus, the present invention differs from Brunner at least in that the present invention specifies mesoporous materials, specifically a mesoporous metallosilicate support material.

Brunner, at col. 2, line 59+, allows for 50-90% of the pore volume of the support to be mesoporous material, but does not specify metallosilicate as one of the materials.

In the recent Supreme Court case of *KSR International Co. v. Teleflex Inc.*, the Court laid down a functional approach for the determination of obviousness. KSR *International Co. v. Teleflex Inc.*, 82 U.S.P.Q.2d 1385, 1395-97 (2007). Although the

prior art references when combined need not teach or suggest all the claim limitations, the Examiner must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art, with more than just conclusory statements.

We respectfully urge that the Examiner has concluded that the references teach the present invention, but does not say why. For instance, it is concluded that "mesoporous silica" is prima facie obvious, but no reason is given other than "the description in Brunner". Where does it say that in Brunner?

In KSR, *supra*, the Supreme Court said that "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to use the known options with his or her grasp."

While Brunner gives a general description of the use of mesoporous materials and both Brunner and Raja give a specific solution, the solution provided does not suggest the present invention. Clearly, the choices are practically infinite, as far as can be told by the present record, with respect to mesoporous materials, and the possibility of success - particularly considering the nature of catalysis - is slight.

Furthermore, we have advanced unexpected results as set forth in previous responses.

As pointed out previously, it is believed that Table 1, on page 30, of the present application provides the best comparison of the present invention with what is suggested by the prior art. That is, in Table 1, reproduced below for the convenience of the Examiner, hydrogenation using ruthenium on MCM-41 (Examples 8c and 8e) are compared with hydrogenation using ruthenium on alumina (Example 8a), as suggested by Brunner. Clearly, in direct comparison, catalysts according to the present claims are superior with respect to conversion and wt % lights produced. Such results are not fairly suggested by any reference of record, alone or in combination.

Table 1

Example	Catalyst	Weight DINP (g)	Weight Catalyst (g)	Temp (°C)	Pressure (psig)	Time (h)	Conversion mole %	Lights (wt %)	Hydrogenation Method
8a 1 Run	Ru on Al_2O_3 (Ex 6)	193.6	10.0	120 °	840	7.5	97.1	0.90	Example 7b
8b 3 Runs	Ru on MCM-41/Al_2O_3 (Ex 4)	192.1	10.01	120°C	840	7.5	97	0.74	Example 7b
8c 2 Runs	Ru on MCM-41 crystal (Ex 3)	194.5	10.0	120°C	840	7.5	99+	0.44	Example 7b
8d 2 Runs	Ru on Al_2O_3 (Ex 5)	154.8	8.1	120°C	3000	3	96.0	0.64	Example 7a
8e 1 Run	Ru on MCM-41 Crystal (Ex 3)	137.4	6.07	120°C	3000	3	99.9+	0.35	Example 7a

Thus, even if the Examiner has presented a prima facie case, it is urged that the above results overcome such prima facie case.

For these reasons, it is respectfully requested that the rejection under §103 be withdrawn.

There being no further issues, it is believed that the application is in condition for allowance and early notice to this effect is earnestly solicited.

Respectfully submitted,

19 February 2009
Date

/Andrew B. Griffis/
Andrew B. Griffis
Attorney for Applicants
Registration No. 36,336

Post Office Address (to which correspondence is to be sent):
ExxonMobil Chemical Company
Law Technology Department
P.O. Box 2149
Baytown, Texas 77522-2149
Phone: (281) 834-1886
Fax: (281) 834-2495